

REMARKS

In an Office Action dated 05 June 2006 the Examiner rejected all pending claims 1-23 on prior art grounds. In reply, Applicant submits the present Response with amendment and remarks which are believed to place the application in condition for allowance; entry and consideration hereof are respectfully requested.

The Examiner's particular rejections are now addressed in turn.

Claims 1-10 and 16-23 are rejected under 35 U.S.C. §103(a) as allegedly being obvious in view of U.S. Patent No. 6,408,981 to Smith taken in combination with non-patent literature in the name of Cut Smart.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally the prior art reference(s) must teach or suggest all the claim limitations. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1996).

Concerning amended claim 1, Applicant respectfully submits that the Smith and Cut Smart references taken singularly or in combination fail to teach or suggest all of the recited limitations, thus the outstanding obvious rejection of claim 1 is improper and may not be maintained.

Turning specifically to claim 1, a method of forming an earplug is recited comprising, inter alia, providing a sheet of material having a length substantially greater than a thickness, positioning the sheet proximate to a water jet assembly, activating the assembly to emit a high pressure water stream, and contacting the sheet with the water stream. The method of claim 1 further recites *forming* the sheet to include a thickness substantially equal to a longitudinal length of the earplug, *cutting* the sheet through the thickness in a direction generally orthogonal to the length, *maneuvering* one of the sheet and the high pressure water stream such that the stream traces on the sheet an outer edge of a cross-section of the earplug, and *delimiting* (by the cutting and the maneuvering) at least one side of the earplug which extends generally along a longitudinal length of the earplug. At least these emphasized limitations of forming, cutting, maneuvering, and delimiting are not taught or suggested by the relied upon references. Thus, Smith and Cut Smart do not render claim 1 prima facie obvious.

The Smith reference discloses an earplug 10 having a body 14 formed by an extrusion process. Col. 5, lines 30-67; Figures 2 & 9. The process consists of extruding a monolithic structure 22 from an extruder 20 and feeding the structure 22 to a cutting device 24. *Id.* The cutting device 24 cuts the elongated extruded monolithic structure 22 into discrete pieces of desired length to thus form individual earplugs. *Id.* “The monolithic structure may be cut into discrete pieces using any of a variety of conventional cutting devices such as a knife blade, hot wire, water jet, or laser, for example.” *Id.*, at line 60.

Clearly Smith does not teach or suggest forming a sheet of material to include a thickness substantially equal to a longitudinal length of the resulting earplug, as recited in claim 1. To the contrary, Smith does not recite a sheet at all. Instead the reference discloses an elongated extruded monolithic structure 22, i.e., a cylindrical extrudate. Moreover, a thickness of the extruded cylinder corresponds to a minor axis (i.e., the non-longitudinal axis) of the resulting earplug.

Further, Smith does not teach or suggest cutting the sheet through the thickness thereof in a direction generally orthogonal to the length of the sheet and maneuvering one

of the sheet and the high pressure water stream such that the stream traces on the sheet an outer edge of a cross-section of the earplug, as recited by Applicant's amended claim 1. To the contrary, Smith simply discloses severing an elongated extrudate 22 in intervals to form discrete pieces.

Additionally, Smith does not teach or suggest delimiting (by the above-discussed cutting and the maneuvering) at least one side of the earplug which extends generally along a longitudinal length of the earplug, as also recited by amended claim 1. To the contrary, Smith only delimits a front and rear (minor) side of the earplug 10, both of which extend in a direction perpendicular to a longitudinal axis of the earplug 10.

The Cut Smart publication relied upon by the Examiner fails to remedy the above-discussed deficiencies of the Smith reference. Particularly, Cut Smart only provides general disclosure concerning the art of water jet cutting. For example, Cut Smart states that water jets may be used to cut everything from titanium to Nabisco Fig Newtons®. Cut Smart does not teach or suggest any of the limitations of claim 1 addressed above.

Accordingly, for at least these reasons, Applicant's claim 1 as amended herein is not rendered *prima facie* obvious by the combination of Smith and Cut Smart; reconsideration and withdrawal of the relevant §103 rejection is respectfully requested. Claim 1 is not further rejected or objected to and is thus allowable to Applicant.

As mentioned above, claims 2-10 and 16-21 are also rejected as allegedly being obvious in view of Smith taken in combination with Cut Smart. However, claims 2-10 and 16-21 variously depend from allowable claim 1 and are thus correspondingly allowable.

Claims 22 and 23 are also rejected under §103 as being obvious in view of Smith and Cut Smart. However, independent claim 22 is amended herein similarly to claim 1 and thus includes certain novel and non-obvious limitations analogous to those discussed above. Particularly, claim 22 recites a method of forming an earplug comprising, *inter alia*, forming a sheet of resilient, compressible full-recovery foam material so as to include a thickness substantially equal to a longitudinal length of the earplug, contacting the foam

sheet with a high pressure water jet stream in a direction generally perpendicular to the sheet, and maneuvering the high pressure stream to delimit elongated sides of the earplug extending substantially along the longitudinal length of the earplug. As discussed above with reference to claim 1, Smith does not teach or suggest these features and Cut Smart does not remedy the deficiencies of Smith. Thus, amended claim 22 is non-obvious with respect to Smith and Cut Smart.

Additionally, independent claim 22 recites conveying the foam sheet to a water jet cutting assembly, depositing the foam sheet on a slat, pressurizing water in the water jet cutting assembly with a pump, and delivering the pressurized water through a jewel in a high pressure stream. Clearly, none of these limitations are found in Smith or Cut Smart.

Accordingly, for at least these reasons, independent claim 22 is not prima facie obvious with respect to Smith and Cut Smart. Claim 22 is not further rejected or objected to and is thus allowable to Applicant.

Claim 23 is also rejected in view of Smith and Cut Smart on obviousness grounds. However, this claim depends from allowable claim 22 and is thus correspondingly allowable.

Claims 11-15 are rejected under 35 U.S.C. §103(a) as allegedly being obvious in view of Smith and Cut Smart and in further view of U.S. Patent No. 5,573,015 to Williams. Claims 11-15 variously depend from allowable claim 1 and are thus correspondingly allowable.

For at least the reasons set forth hereinabove, pending claims 1 and 2-23 are non-obvious with respect to the relied upon references; reconsideration and withdrawal of all outstanding §103 rejections is respectfully requested.

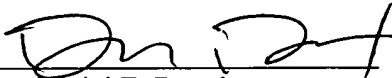
The Examiner is invited to contact Applicant's attorneys at the below listed telephone number concerning this Response or otherwise regarding the present application.

Applicant hereby petitions under 37 C.F.R. §1.136 for any extension of time necessary for entry and consideration of this Response.

If there are any charges with respect to this Response or otherwise please charge them to Deposit Account No. 06-1130 maintained by Applicant's attorney.

Respectfully submitted,

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Date: 04 DEC. 2006